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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,798	12/21/2005	Marie-Isabelle Watchi	282284US0PCT	5869
22850 7590 03/26/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER WILLIAMS, JOSEPH L	
			ART UNIT	PAPER NUMBER
			2879	
SHORTENED STATUTORY PERIOD OF RESPONSE		NOTIFICATION DATE	DELIVERY MODE	
3 MONTHS		03/26/2007	ELECTRONIC	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/26/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

## Office Action Summary

**Application No.**

10/561,798

**Applicant(s)**

WATCHI ET AL.

**Examiner**

Joseph L. Williams

**Art Unit**

2879

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/06</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Specification***

1. The abstract of the disclosure is objected to because it is more than one (1) paragraph. Correction is required. See MPEP § 608.01(b).

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 6-12, 14, and 16-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Takemura et al. (JP 10-298546), of record by Applicant.

Regarding claim 1, Takemura (546) teaches throughout the specification an illumination system consisting of comprising phosphor particles dispersed in a solid, durable matrix while enabling it to wherein the illumination system can be handled by a user (see abstract).

Regarding claim 2, Takemura (546) teaches the phosphor particles are phosphors within the visible region.

Regarding claim 3, Takemura (546) teaches the phosphor particles can be excited by electromagnetic radiation in the UV, visible, IR region or by X-rays or by gamma rays, or by a beam of particles (electrons, ions) or by an electric field (read CRT).

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Regarding claim 6, Takemura (546) teaches the matrix comprises a product of the polymerization/polycondensation of a silicon alkoxide (see abstract).

Regarding claim 7, Takemura (546) teaches the matrix is in the form of a thin layer adhering to a substrate (read screen, paragraph 4).

Regarding claim 8, Takemura (546) teaches the phosphor particles are in aqueous suspensions and characterized in that their wherein the phosphor particle size is at most equal to 100 nm, and in that the assembly that the phosphor particles form with the matrix is transparent (see paragraph 7).

Regarding claim 9, Takemura (546) teaches the size of the phosphor particles ties is between 0.5 and 10 microns.

Regarding claim 10, Takemura (546) teaches the matrix comprises particles ~ that scatter visible light.

Regarding claim 11, Takemura (546) teaches the substrate is capable of exciting phosphor particles, in particular an electroconductor, in particular of the UV electroluminescent type (read CRT).

Regarding claim 12, Takemura (546) teaches the substrate is capable of emitting radiation with a wavelength in the visible region under suitable excitation.

Regarding claim 14, Takemura (546) teaches the substrate is made of comprises glass, in particular in the form of a sheet, slab, tube, fiber or fabric.

Regarding claim 16, Takemura (546) teaches the phosphor particles ~ emit different wavelengths of radiation and are associated there with, separated from each other and homogenized, so as to produce light.

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Regarding claim 17, Takemura (546) teaches the phosphor particles that are identical or emit different wavelengths are associated therewith in variable compositions and/or concentrations, so as to form signs such as written or similar signs, or for any- a decorative purpose, or any other purpose.

Regarding claim 18, Takemura (546) teaches a transparent device.

Regarding claim 19, Takemura (546) teaches a light-scattering device.

Regarding claim 20, Takemura (546) teaches a lamp, in particular a thin one, or to a device illuminating at night, in particular for signs, or for decorative purposes, or to a flat lamp.

Regarding claim 21, Takemura (546) teaches a use to a monolithic, laminated, single glazing or multiple glazing designed for buildings, to a transport vehicle, such as an automobile rear window, side window or roof, to any other terrestrial or aquatic vehicle or aircraft, to street furniture, such as a bus shelter, to a road sign or to an advertisement panel, to an aquarium, to a store window, to a glasshouse, to interior furniture, to a mirror, to a screen for a display system of the computer type, to a television, to a telephone, to electrically controllable glazing such as electrochromic glass, to liquid crystals, to electroluminescent material or to photovoltaic glass

Claims 1-7 and 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Asao et al. (JP 10-158644), of record by Applicant.

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Regarding claim 1, Asao ('644) teaches throughout the specification an illumination system consisting of comprising phosphor particles dispersed in a solid, durable matrix while enabling it to wherein the illumination system can be handled by a user (see abstract).

Regarding claim 2, Asao ('644) teaches the phosphor particles are phosphors within the visible region.

Regarding claim 3, Asao ('644) teaches the phosphor particles can be excited by electromagnetic radiation in the UV, visible, IR region or by X-rays or by gamma rays, or by a beam of particles (electrons, ions) or by an electric field (read CRT).

Regarding claim 4, Asao ('644) teaches the matrix is inorganic.

Regarding claim 5, Asao ('644) teaches the matrix is comprised of lithium silicate.

Regarding claim 6, Asao ('644) teaches the matrix comprises a product of the polymerization/polycondensation of a silicon alkoxide (see abstract).

Regarding claim 7, Asao ('644) teaches the matrix is in the form of a thin layer adhering to a substrate.

Regarding claim 10, Asao ('644) teaches the matrix comprises particles ~ that scatter visible light.

Regarding claim 11, Asao ('644) teaches the substrate is capable of exciting phosphor particles, in particular an electroconductor, in particular of the UV electroluminescent type.

Regarding claim 12, Asao ('644) teaches the substrate is capable of emitting radiation with a wavelength in the visible region under suitable excitation.

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Regarding claim 13, Asao ('644) teaches the substrate comprises glass with a cerium (see paragraph 12) content.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takemura et al. (JP 10-298546), of record by Applicant.

Takemura ('546) teaches all of the claimed limitations except for the substrate being made of plastic.

However, it is well known in the art to apply a luminescent material to a plastic substrate instead of glass for the purpose of having lighter weight device.

Hence it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a plastic substrate in place of the glass substrate for the purpose of having lighter weight device.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph L. Williams whose telephone number is (571) 272-2465. The examiner can normally be reached on M-F (6:30 AM-3:00 PM).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Joseph L. Williams  
Primary Examiner  
Art Unit 2879